

Lessons Learned in the Specification, Purchase, Validation and Final Installation Process of a Replacement PCM Bit Synchronizer

Abstract

This paper intends to describe the lessons learned while specifying validating and installing a bit sync to replace the 30 year old Aydin Model 335a PCM bit sync used in the Space Shuttle Launch Control Center. The engineer had to analyze the original requirements and specifications and then create new requirements documentation that more correctly described our needs. One issue to consider was the removal of unnecessary requirements such as various data formats when only one format is used. The conversion to a system that no longer has an assortment of analog rotary switches required retraining of the operators. Finally, post-procurement corrections for undisclosed user requirements and missed design requirements required close contact with a manufacturer who was willing to accommodate the changes.

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